SMART RETAIL & INDUSTRY 4.0 - PUSHING SALES INTO THE FUTURE

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We all learned about the industrial revolution in History class. From assembly lines to the changing role of labor and mechanization, there is a collective mental image in our heads of a past century in flux.

That, however, is not where the story comes to an end. What with the burgeoning trends of mass production, electricity, automation, and computing technology, the industry as a whole has now experienced several notable revolutions - cue industry 4.0 and smart retail.

In the past few years, we have again entered a new phase of industrialization, akin to a revolution. Known as 'industry 4.0', this collective industrial improvement involves the 'internet of things', cyber-physical systems, and cloud/cognitive computing.

In simplified terms, industry 4.0 refers to how our devices communicate with one another and are able to learn over time, thereby heightening efficiency and decentralization. In practice, these new advances are most clearly manifested in a collective series of processes that have become known as smart retail.

What is smart retail?

Smart retail refers to the hybridization between traditional shopping methods and modern 'smart' technologies. Through the internet-of-things, data is accumulated by way of communication between implanted devices and computers. As a result, consumers may enjoy a more personalized, faster, and smarter experience. This can manifest as individualized coupons and smartly curated inventories.

In practice, smart retail's greatest asset is its involvement with artificial intelligence (AI). Just because a process includes automation doesn't mean that it has the capability to make complex decisions, particularly ones that may have an effect on a business and its processes, both radical or otherwise.

With AI included in the processes, those decision-making powers have now become possible. In this case, they'll also experience constant self-correction and improvement. It may sound a bit like The Avenger's Ultron, but in actuality, smart retail and industry 4.0's applications are not to be feared. Instead, their features, benefits, and overall impact should entice everyone to join the revolution!

What are smart retail's features?

The implementation of smart retail-related processes has completely altered the landscape of the sales industry. In fact, many traditional retailers and industry leaders have seen industry 4.0, smart retail and their fundamental features to be the solution to several issues endemic to their line of business. Decentralization, optimization, and transparency, for example, all play necessary roles in said solution.

Decentralization

Decentralization, in any setting, heavily depends on reliability across the board, so as to have confidence that overall decision-making and efficiency is maintained without managerial oversight. The same holds true for smart retail, in that it requires little manual interference and is able to optimize and adjust its processes through sheer automation.

Transparency

In the case of smart retail, transparency refers to the presence of relevant data across the supply chain. With information readily obtainable across all levels, both human

management and automated systems will be able to take note of trends, make more accurate choices, or detect errors before they are able to arise.

Optimization

Smart retail, with proper optimization, takes advantage of its decentralized and transparent nature to become more versatile and dynamic. Therein, not only will smart retailers be able to adapt without trouble, but it will also be able to take action against abnormalitie

s before they become a risk to the greater retail infrastructure.

What are smart retail's benefits?

By their very nature, smart retail results in an optimized, decentralized, and transparent sales process for both the retailer itself and the greater supply chain. However, many companies focus on tangible benefits, beyond the broad features. To that end, the benefits of smart retail include increased efficiency, quality, and output sustainability.

Efficiency

Self-adaptation and its effect on efficiency is smart retail's greatest strength. When fully operational, efficient smart retail will have constant access to an ever-changing stream of data. Therein, smart retail will analyze and self-correct in order to make the sales and adaptation process, as well as its output, as efficient as possible.

Quality

Considering smart retail's ability to detect and resolve potential issues before they have a chance to become properly troublesome, its end-result never has a chance to suffer. Therefore, the quality of any given smart retailer's output will trend higher than any of those produced by non-smart means, which sometimes produce inadequate results.

Sustainable Output

Within traditional retail and sales spaces, disruptions have been known to happen on occasion, whether it be due to labor, environmental, and accidental factors. The adaptability and self-correction processes that come with smart retail eliminates the possibility for human error. Its automation, therefore, can result in increased safety and ensured output sustainability.

What is smart retail's impact?

Smart Retail does not simply exist on its own. While its features and benefits have indeed altered the sales and marketing processes of stores everywhere, its impact goes much further beyond. What effect does this newest industrial revolution have on the workforce, on the supply chain, and on security? Read onward to find out!

Workforce Skill Alteration

The processes of an industry cannot undergo such a revolution without impacting the average worker in some way. Just as in the previous industrial revolutions, the role of the human workforce has changed. Broadly speaking, workers will shift away from physical labor and towards technological support, thereby necessitating a technical skill set.

Supply Chain Adaptation

Across the supply chain, from warehouse management to quality control and sales, the rise of smart retail has forced adaptation across the board. Since smart retail's automation and self-correction processes are working at all times, the rest of the supply chain needs to be able to maintain the same degree of flexibility.

IT Security

In our digital era, information has become accessible like never before, but at the cost of security. Data protection has rapidly become a fully-fledged industry as many entities seek information protection. Smart retail, inherently, is not free from this issue, but has inspired many corporations to make finding a solution a priority.

A real-life application of smart retail technology

To a layperson, it would be understandable to view the concepts involved in smart retail to be technical to the point of being abstract. However, Smart Retail is actually used in retail and sales throughout the world. In fact, it might be used in some of your favorite stores and restaurants, and you might not even know.

For instance, in the United States, the supermarket chain Safeway uses a form of smart retail to reward shoppers with discounts based on their previous shopping habits. Conveyed by way of the company's dedicated smartphone application, shoppers' purchases are tracked by use of their registered phone number, which is input in the course of checkout. By logging into the app afterward, said shopper will see individualized deals meant to attract them back to the supermarket for their next round of grocery purchases.

Beyond the customer experience, Safeway also utilizes smart retail by using overall shopping habits and inventory tracking to determine item/shelf/display placement on a store-by-store basis. A longtime tenet of retail establishments everywhere, each and every available square foot of floor space can either be a source of income or a source of nothing. With the advent of smart retail processes, Safeway now has detailed store-by-store data that helps them to determine how to maximize profitability for each of the supermarket chain's locations.

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